

REMARKS

I. Introductory Remarks

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and following remarks.

Upon entry of the foregoing amendments, claims 1-20 will be pending in the application, with claims 1-4 and 13-14 being withdrawn from consideration. Claim 5 is being amended. No claims are being cancelled or added.

Exemplary support for the amendments to claim 5 exists at page 3, paragraphs 1-4 of the specification.

It is acknowledged that the amendments are submitted after final rejection. However, because the amendments do not introduce new matter, and because the amendments place the application in condition for allowance, or at least in better condition for appeal, entry thereof is respectfully requested.

II. Interview Summary

Applicants thank Examiner Douglas for the courtesy of a telephone interview on December 16, 2003.

During the interview, Applicants' representative and Examiner Douglas discussed the outstanding rejection of claim 5 and distinguishing features of the claimed microarraying apparatus, particularly the height adjustment mechanism operable to alter the height of the well plate platform relative to that of the apparatus bed. Applicants' representative explained Applicants' discovery that prior microarraying apparatus were overly complex, and that much of this complexity could be eliminated by a microarraying apparatus in which the relative heights of the spotting surface and the well plates can be pre-aligned, such that the pin head can be lowered to a single absolute height for both picking up liquid from the well plates and depositing it onto the spotting surface. It was further explained that this arrangement eliminates the need for complex feedback mechanisms to control vertical pin head positioning.

Examiner Douglas acknowledged Applicants' position and suggested: (1) amending claim 5 to recite the advantages of the claimed microarraying apparatus, and (2) explaining in this response the criticality of an adjustable well plate platform. Applicants have adopted both of these suggestions.

III. Claim 5 is Patentable over U.S. Patent No. 6,269,846 ("Overbeck")

Claim 5 stands rejected under 35 U.S.C. § 103 as allegedly being obvious over U.S. Patent No. 6,269,846 ("Overbeck"). According to the Office, Overbeck discloses a microarraying apparatus comprising a well platform, but does not disclose that the height of the well platform is adjustable. The Office stated, however, that the provision of adjustability involves only routine skill in the art. Applicants respectfully traverse the rejection.

The mere fact that one of ordinary skill in the art *could* modify the art to obtain the claimed invention does not itself establish a *prima facie* case of obviousness. Obviousness also requires that one of ordinary skill in the art would have been *motivated* to do so. *See In re Vaeck*, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991) and *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Thus, in *In re Kotzab*, 2127 F.3d 1365, 1371, 55 USPQ2d 1313, 1318 (Fed. Cir. 2000), the court reversed an obviousness rejection involving a technologically simple concept because there was no finding as to the understanding that would have motivated the skilled artisan to make the claimed invention.

Similarly, no motivation or suggestion to modify Overbeck existed in this case because Applicants identified *both* a problem in the art *and* a solution to the problem. As such, those of ordinary skill in the art could not have been motivated to solve the problem, because they were not even aware that the problem existed.

The problem identified by Applicants is that prior microarrayers were overly complex, and therefore more expensive than necessary. In particular, prior microarrayers employed feedback mechanisms to control vertical positioning of their pin heads. As a solution to this problem, Applicants conceived a microarraying apparatus in which the relative heights of the spotting surface and the well plates are pre-aligned, such that the pin head can be lowered to a single absolute height for both picking up liquid from the well plates and depositing it onto

the spotting surface. This arrangement eliminates the need for complex feedback mechanisms to control vertical pin head positioning.

Accordingly, the microarraying apparatus of claim 5 comprises a height adjustment mechanism operable to alter the height of the well plate platform relative to that of the apparatus bed. This mechanism can be employed to pre-align the heights of the spotting surface and well plates, thereby enabling pins in the pin head to move to a single, mechanically defined lowest point of travel for both picking up liquid from well plates and depositing liquid onto a spotting surface. Thus, the claimed invention has no need for a feedback mechanism to control vertical pin head positioning.

Because Applicants discovered both a problem and a solution to the problem, the simplicity of Applicants' solution does not negative its patentability. Applicants therefore request withdrawal of the rejection of claim 5.

IV. Concluding Remarks

Applicants request favorable reconsideration of the present application, as it is now in condition for allowance. If the Examiner believes that an interview would further advance prosecution, he is invited to contact the undersigned by telephone.

The Commissioner is hereby authorized to charge any additional fees that may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to

Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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